# Center for Regulatory Services, Inc.

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**April 22, 2015** 

**CBIC Control Number** 

364817

U.S. Environmental Protection Agency - East Attn: TSCA Section 8(e) Room 6428 1201 Constitution Avenue, NW Washington, DC 20004

SUBJECT:

TSCA 8(e) Notification CAS Registry No. 716-79-0

The enclosed aquatic tox results that came the attention of JSR Micro, Inc., April 17, 2015, for the subject substance that is identified as being on the Inventory.

The results of the aquatic tox testing of the substance is only identified as **NIPBIM**.

96-hour LC50 Acute Toxicity Study in Fish (Oryzias latipes) - 10-100 mg/L

48-hour EC50 Acute Immobilization in *Daphnia magna* – 1.0-10 mg/L

72-hour EC50 Algal Growth Inhibition in Pseudokirchneriella subcapitata - 10-100 mg/L

Please feel free to contact the undersigned if you have any questions or if we can provide additional information.

Sincerely,

William A. Olson, Ph.D.

Agent

JSR Micro, Inc.

WAO:gbt JSR-8E-NIPBIM

**Enclosures** 

3 Aquatic Tox Reports (6 pages)

ec: Y. Ueda/ T. Ozag, JSR (w/o Enclosures)



| Receipt number | 662-14-E-6911 |  |  |
|----------------|---------------|--|--|
| Study number   | 96911         |  |  |

March 23, 2015

## TEST REPORT

- A 96-hour Acute Toxicity Study in Fish -

Chemicals Evaluation and Research Institute,

Japan, Kurume

3-2-7, Miyanojin, Kurume-shi,

Fukuoka 839-0801, Japan

1. Test item NIPBIM

2. Sponsor JSR Corporation

3. Objective To determine acute toxicity of the test item to Medaka

4. Dates Exposure initiation March 13, 2015

Exposure termination March 17, 2015

5. Materials and methods

Test organism Medaka (Oryzias latipes)

(Total length: 2.2-2.6 cm Body weight: 0.093-0.18 g)

Exposure conditions

Exposure duration: 96 hours
Test type: Static regime

Test concentration: 100, 10, 1.0 mg/L as nominal concentration, and a control Preparation of test solution: The test item and dilution water were mixed to prepare each

nominal concentration and stirred for 48 hours under shading.

Then the suspension was filtered with a glass fiber filter (GB-140, 0.4 µm pore size, Toyo Roshi) by suction to prepare the test

solution. The test item was treated under yellow fluorescent light.

**Environmental conditions** 

Dilution water: Dechlorinated tap water

Temperature: 24±1°C

Number of organisms: 7 fish/test level

Volume of test solution: Approximately 2.8 L/test level

Test vessel: Glass tank

Lighting condition: Shading condition (It was conducted under the yellow

fluorescent light at the preparation of test item, handing of test organism, measurement of water quality and observation of test organisms, and under the room light at

filtering the test solutions.)

Feeding: No feeding

Aeration: Conducted gently

Observation and measurements

Observation of test organisms: Mortality was observed under the yellow fluorescent light at

24, 48, 72 and 96 hours after exposure.

Size of organism: Test organisms in the control were used for measuring total

length and body weight after the end of exposure.

Water quality: Dissolved oxygen concentration and pH were measured of the

control at the start and end of exposure. These were measured of the 100 mg/L at the start exposure and the time that mortality of all

test organisms was confirmed.

Appearance of test solution: Colorless and clear (at the start of exposure: visual)

#### 6. Result

96-hour median lethal concentration (96hr  $LC_{50}$ ): 10-100 mg/L (nominal concentration)

Table Result of cumulative mortality and quality of test solution

| Test level | Cumulative mortality (%) |          |          |          | Dissolved oxygen concentration (mg/L) |            | рН           |            |
|------------|--------------------------|----------|----------|----------|---------------------------------------|------------|--------------|------------|
| (mg/L)     | 24 hours                 | 48 hours | 72 hours | 96 hours | At the start                          | At the end | At the start | At the end |
| Control    | 0                        | 0        | 0        | 0        | 8.2                                   | 8.1        | 7.9          | 7.9        |
| 1.0        | 0                        | 0        | 0        | 0        |                                       |            |              |            |
| 10         | 0                        | 0        | 0        | 0        |                                       |            |              |            |
| 100        | 0                        | 14       | 100      | 100      | 8.2                                   | 8.2ª       | 8.0          | 7.8ª       |

a It indicates the measured value at the time that mortality of all organisms was confirmed. (72 hours after the start of exposure)



| Receipt number | 662-14-E-6910 |
|----------------|---------------|
| Study number   | 96910         |

March 23, 2015

## TEST REPORT

- A 48-hour Acute Immobilization Study in Daphnia magna -

Chemicals Evaluation and Research Institute. Japan, Kurume 3-2-7, Miyanojin, Kurume-shi, Fukuoka 839-0801, Japan

1. Test item

**NIPBIM** 

2. Sponsor

JSR Corporation

3. Objective

To determine acute effects of the test item to daphnids

4. Dates

Exposure initiation

March 18, 2015

Exposure termination

March 20, 2015

5. Materials and methods

Test organism

Daphnia magna (Clone A)

Exposure conditions

Exposure duration:

48 hours

Test type:

Static regime

Test concentration:

100, 10, 1.0 mg/L as nominal concentration, and a control

Preparation of test solution:

The test item and dilution water were mixed to prepare each nominal concentration and stirred for 48 hours under shading. Then the suspension was filtered with a glass fiber filter (GB-140, 0.4 µm pore size, Toyo Roshi) by suction to prepare the test

solution. The test item was treated under yellow fluorescent light.

**Environmental conditions** 

Dilution water:

Dechlorinated tap water

Temperature:

20±1°C

Number of organisms:

20 daphnids/test level (5 daphnids/test vessel, 4 replicates)

Volume of test solution:

400 mL/test level (100 mL/test vessel, 4 replicates)

Test vessel:

100 mL glass beaker

Lighting condition:

Shading condition

It was conducted under the yellow fluorescent light at the preparation of test solution, handing of test organism, measurement of water quality and observation of test organisms.

and under the room light at filtering the test solutions.

Feeding:

No feeding

Aeration:

No aeration

Observation and measurements

Observation of organisms:

Immobility was observed at 24 and 48 hours after exposure.

Daphnids were considered immobile if they were not able to swim

within 15 seconds after gentle agitation of the test vessel.

Water quality:

Dissolved oxygen concentration and pH were measured of 100

mg/L and the control at the start and end of exposure.

Appearance of test solution:

Colorless and clear (at the start of exposure: visual)

## 6. Result

48-hour median effective concentration (48hr EC<sub>50</sub>): 1.0-10 mg/L (nominal concentration)

Table Result of immobility and quality of test solution

|            |                |          | <u> </u>                              |            |              |            |
|------------|----------------|----------|---------------------------------------|------------|--------------|------------|
| Test level | Immobility (%) |          | Dissolved oxygen concentration (mg/L) |            | pН           |            |
| (mg/L)     | 24 hours       | 48 hours | At the start                          | At the end | At the start | At the end |
| Control    | 0              | 0        | 8.8                                   | 8.8        | 7.6          | 7.6        |
| 1.0        | 0              | 0        |                                       |            |              |            |
| 10         | 20             | 90       |                                       |            |              |            |
| 100        | 100            | 100      | 8.9                                   | 8.8        | 7.6          | 7.8        |



| Receipt number | 662-14-E-6909 |
|----------------|---------------|
| Study number   | 96909         |

March 30, 2015

# TEST REPORT

Algal Growth Inhibition Study in Pseudokirchneriella subcapitata —

Chemicals Evaluation and Research Institute. Japan, Kurume 3-2-7, Miyanojin, Kurume-shi, Fukuoka 839-0801, Japan

1. Test item

**NIPBIM** 

2. Sponsor —

JSR Corporation

3. Objective

To determine the effects of the test item on growth of algae

Exposure initiation

March 16, 2015

4. Dates

Exposure termination

March 19, 2015

5. Materials and methods

Test organism

Pseudokirchneriella subcapitata

**Exposure conditions** 

Exposure duration:

Type test:

Incubation with rotary shaking (approximately 100 rpm) 100, 10, 1.0 mg/L as nominal concentration and a control

Test concentration: Preparation of test solution:

The test item and medium were mixed to prepare each nominal concentration and stirred for 48 hours under shading. Then the

suspension was filtered with a glass fiber filter (GB-140, 0.4 µm pore size, Toyo Roshi) by suction to prepare the test solution.

The test item was treated under yellow fluorescent light.

Environmental conditions

Medium:

OECD medium

Temperature:

 $21-24^{\circ}$ C (not varied more than  $\pm 2^{\circ}$ C)

Initial cell concentration:

10<sup>4</sup> cells/mL

Volume of test solution:

300 mL/test level (100 mL/test vessel × 3 replicates)

Test vessel:

Sterilized 300 mL Erlenmeyer flask with gas-permeable

silicon rubber plug

Lighting condition:

Nominal 90 µmol·m<sup>-2</sup>·s<sup>-1</sup>

(within  $\pm$  20% of nominal, within  $\pm$  15% from the average

light intensity)

Continuous illumination provided by fluorescent lights

with wavelength range of 400-700 nm

Measurements

Biomass:

Cell concentration was measured.

Condition of test solution:

pH of 100 mg/L and control were measured at the start and

end of exposure.

Appearance of test solution: Clear and colorless (at the start of exposure: visual)

#### 6. Result

72-hour median effective concentration (72hr  $E_rC_{50}$ ) [Based on growth rate (0-3d)] : 10-100 mg/L (nominal concentration)

No Observed Effect Concentration (NOEC): <1.0 mg/L (nominal concentration)

Table Result of growth inhibition rate and quality of test solution

| Test level | Growth inhibition rate (%) | pН           |            |  |
|------------|----------------------------|--------------|------------|--|
| (mg/L)     | (Growth rate 0-3d)         | At the start | At the end |  |
| Control    | -                          | 7.8          | 7.8        |  |
| 1.0        | 6.3                        |              |            |  |
| 10         | 45                         |              |            |  |
| 100        | 62                         | 7.8          | 7.8        |  |

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